



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1217; Directorate Identifier 2012-NE-39-AD]

RIN 2120-AA64

Airworthiness Directives; International Aero Engines AG Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain International Aero Engines AG (IAE), V2525-D5 and V2528-D5 turbofan engines, with a certain number (No.) 4 bearing internal scavenge tube and a certain No. 4 bearing external scavenge tube installed. This proposed AD was prompted by a report of an engine under-cowl fire and commanded in-flight shutdown. This proposed AD would require replacement of certain part number (P/N) No. 4 bearing internal scavenge tubes, and alignment checks of certain P/N No. 4 bearing external scavenge tubes. We are proposing this AD to prevent engine fire and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact International Aero Engines, 628 Hebron Avenue, Suite 400, Glastonbury, CT 06033; phone: 860-368-3823; fax: 860-755-6876. You may view the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Martin Adler, Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7157; fax: 781-238-7199; email: martin.adler@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-1217; Directorate Identifier 2012-NE-39-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We received a report of a fire warning on an IAE V2525 turbofan engine shortly after takeoff. The engine experienced an under-cowl fire and a commanded in flight shutdown. Investigation revealed that this event was caused by failure of the No. 4 bearing internal scavenge tube due to high stress. A misalignment of the No. 4 bearing external scavenge tube was noted to be a contributing factor. This proposed AD would direct the replacement of all No. 4 bearing internal scavenge tubes, P/N 2A2074-01. This proposed AD would also require checking the alignment of the No. 4 bearing external scavenge tube, P/N 6A5254, and if it fails the check, replacement of the external scavenge tube. These conditions, if not corrected, could result in engine fire and damage to the airplane.

Relevant Service Information

We reviewed IAE Service Bulletin (SB) No. V2500-ENG-72-0630, Revision 1, dated September 20, 2012. The SB describes procedures for replacement of the No. 4 bearing internal scavenge tube and for verification of proper alignment of the No. 4 bearing external scavenge tube.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require the replacement of the No. 4 bearing internal scavenge tube, P/N 2A2074-01, at the next combustor module-level exposure. This AD

would also require verification of the alignment and installation of the No. 4 bearing external scavenge tube, P/N 6A5254, relative to the tube-to-boss elbow, P/N 2A2514 or P/N 2A3951-01, on the No. 4 bearing internal scavenge tube, P/N 2A2074-01.

Differences Between the Proposed AD and the Service Information

The SB requires replacement of the No. 4 bearing internal scavenge tube, P/N 2A2074-01, at each combustor module-level exposure. This AD would require replacement at each combustor module-level exposure after 10,000 cycles.

Interim Action

We consider this proposed AD interim action. The design approval holder is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, we might consider additional rulemaking.

Costs of Compliance

We estimate that this proposed AD would affect 123 engines installed on airplanes of U.S. registry. We estimate that it would take 1.5 hours per engine to replace the No. 4 bearing internal scavenge tube, and 3 hours per engine to replace the No. 4 bearing external scavenge tube. Required parts would cost \$25,251 per engine. The average labor rate is \$85 per hour. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$3,152,921.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures

(44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

International Aero Engines AG: Docket No. FAA-2012-1217; Directorate Identifier 2012-NE-39-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to International Aero Engines AG (IAE), V2525-D5 and V2528-D5 turbofan engines, serial numbers V20001 through V20285, with number (No.) 4 bearing internal scavenge tube, part number (P/N) 2A2074-01 and No. 4 bearing external scavenge tube, P/N 6A5254 installed.

(d) Unsafe Condition

This AD was prompted by a report of an engine under-cowl fire, commanded in-flight shutdown, and damage to the airplane. We are issuing this AD to prevent engine fire and damage to the airplane

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(f) No. 4 Bearing Internal Scavenge Tube, P/N 2A2074-01, Replacement

Replace the No. 4 bearing internal scavenge tube, P/N 2A2074-01, at each combustor module-level exposure after the No. 4 bearing internal scavenge tube has accumulated 10,000 flight cycles (FCs) since new. If the FCs on the tube cannot be confirmed, replace the tube at each combustor module-level exposure.

(g) No. 4 Bearing External Scavenge Tube, P/N 6A5254, Installation

At each installation, check the alignment of the No. 4 bearing external scavenge tube, P/N 6A5254, in accordance with paragraphs 3.A. PART 2, of IAE NMSB No. V2500-ENG-72-0630, Revision 1, dated September 20, 2012. If the tube is misaligned, replace with a new tube.

(h) Definitions

Combustor module level exposure is defined as separation of the combustor case and the compressor case flanges.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(j) Related Information

(1) For more information about this AD, contact Martin Adler, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: martin.adler@faa.gov, phone: 781-238-7779; fax: 781-238-7199.

(2) For service information identified in this AD, contact International Aero Engines AG, 628 Hebron Avenue, Suite 400, Glastonbury, CT 06033; phone: 860-368-3823; fax: 860-755-6876. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on December 28, 2012.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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